

IN THE CLAIMS:

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Please cancel Claims 1, 4, 8 to 10 and 16 to 18 without prejudice or disclaimer of the subject matter of the subject matter contained therein.

Please amend the remaining claims and add new Claims 25 to 29 to read as follows. All claims currently pending in the application, including those not amended, are reproduced below. A marked-up copy of amended claims, showing the changes made thereto, is attached

2. (Amended) An image forming apparatus comprising:

A1
scanning means for scanning a photosensitive body using a plurality of semiconductor lasers to form a latent image; and

latent image forming means for pulse-width-modulating a drive signal of the semiconductor lasers in accordance with a write position of the latent image in the case that exposure is performed such that one beam from the plurality of semiconductor lasers is partially overlapped with an adjacent beam from the plurality of semiconductor lasers on the photosensitive body,

wherein said latent image forming means does not pulse-width-modulate the drive signal in the case that at least two of the plurality of semiconductor lasers are simultaneously turned on in one scanning, and

wherein the latent image forming means pulse-width-modulates the drive signal in the case that one beam from the plurality of semiconductor lasers which is turned

on in one scanning is adjacent to one beam from the plurality of semiconductor lasers which is turned on in the next scanning.

A1
(cont'd)
3. (Amended) An image forming apparatus comprising:

scanning means for scanning a photosensitive body using a plurality of semiconductor lasers to form a latent image; and

latent image forming means for pulse-width-modulating a drive signal of the semiconductor lasers in accordance with a write position of the latent image in the case that exposure is performed such that one beam from the plurality of semiconductor lasers is partially overlapped with an adjacent beam from the plurality of semiconductor lasers on the photosensitive body,

wherein said latent image forming means does not pulse-width-modulate the drive signal in the case that at least two of the plurality of semiconductor lasers are simultaneously turned on in one scanning, and

wherein said latent image forming means pulse-width-modulates the drive signal in the case that one of the plurality of semiconductor lasers is turned on in one scanning.

A2
5. (Amended) An image forming method for scanning a photosensitive

body using a plurality of semiconductor lasers to form a latent image, comprising the step of:

forming a latent image by modulating a drive signal of the semiconductor

lasers by PWM in accordance with a write position of the latent image in the case that exposure is performed such that one beam from the plurality of semiconductor lasers is partially overlapped with an adjacent beam from the plurality of semiconductor lasers on the photosensitive body,

wherein, in said latent image forming step, the drive signal is not modulated by PWM in the case that at least two of the plurality of semiconductor lasers are simultaneously turned on in one scanning, but is modulated by PWM in the case that one beam from the plurality of semiconductor lasers which is turned on in one scanning is adjacent to one beam from the plurality of semiconductor lasers which is turned on in a next scanning.

6. (Amended) An image forming method for scanning a photosensitive body using a plurality of semiconductor lasers to form a latent image, comprising the step of:

forming a latent image by modulating a drive signal of the semiconductor lasers by PWM in accordance with a write position of the latent image in the case that exposure is performed such that one beam from the plurality of semiconductor lasers is partially overlapped with an adjacent beam from the plurality of semiconductor lasers on the photosensitive body,

wherein, in said latent image forming step, the drive signal is not modulated by PWM in the case that at least two of the plurality of semiconductor lasers are

simultaneously turned on in one scanning, but is modulated by PWM in the case that one of the plurality of semiconductor lasers is turned on in one scanning.

7. (Amended) An image forming apparatus comprising:

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(concl.)
a plurality of emitting means for emitting a plurality of light beams;

scanning means for scanning the plurality of light beams emitted from said plurality of emitting means on a common photosensitive body;

modulating means for pulse-width modulating the plurality of light beams emitted from said plurality of emitting means in accordance with respective image data;

detecting means for detecting a plurality of image pixels which are adjacent to each other in a sub-scanning direction and which are exposed in different main scanings, in accordance with the image data; and

pulse-width control means for controlling said modulating means such that a pulse width for a pixel detected by said detecting means is shorter than a pulse width for a pixel which is not detected by said detecting means.

11. (Amended) An image forming apparatus according to claim 7, wherein

A3
said pulse-width control means controls said modulating means such that the pulse width for the pixel detected by said detecting means is shorter than 100% and the pulse width for the other pixel is 100%.

A3
(cont'd)

12. (Amended) An image forming apparatus according to claim 7, wherein said detecting means comprises storage means for storing image data of at least one main scanning.

13. (Unchanged From Prior Version) An image forming apparatus according to claim 7, wherein exposure is performed such that adjacent pixels are partially overlapped with each other.

14. (Unchanged From Prior Version) An image forming apparatus according to claim 7, wherein the light beam is a laser beam.

A4

15. (Amended) An image forming apparatus comprising:

- a plurality of emitting means for emitting a plurality of light beams;
- scanning means for scanning the plurality of light beams emitted from said plurality of emitting means on a common photosensitive body;
- modulating means for pulse-width modulating the plurality of light beams emitted from said plurality of emitting means in accordance with respective image data;
- detecting means for detecting a plurality of image pixels which are adjacent to each other in a sub-scanning direction and which are exposed in common main scanings, in accordance with the image data; and
- pulse-width control means for controlling said modulating means such that

A4
(cont'd)

a pulse width for a pixel detected by said detecting means is longer than a pulse width for a pixel which is not detected by said detecting means.

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19. (Amended) An image forming apparatus according to claim 15, wherein said pulse-width control means controls said modulating means such that the pulse width for the pixel which is detected by said detecting means is 100% and the pulse width for the pixel which is not detected by said detecting means is shorter than 100%.

20. (Amended) An image forming apparatus according to claim 15, wherein said detecting means comprises storage means for storing image data of at least one main scanning.

21. (Unchanged From Prior Version) An image forming apparatus according to claim 15, wherein exposure is performed such that adjacent pixels are partially overlapped with each other.

22. (Unchanged From Prior Version) An image forming apparatus according to claim 15, wherein the light beam is a laser beam.

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23. (Amended) An image forming method comprising:
an emitting step of emitting a plurality of light beams;
a scanning step of scanning the plurality of light beams to be emitted on a

common photosensitive body;

a modulating step of pulse-width modulating the plurality of light beams emitted in said emitting step in accordance with respective image data;

a detecting step of detecting a plurality of image pixels which are adjacent to each other in a sub-scanning direction and which are exposed in different main scanings, in accordance with the image data; and

a pulse-width control step of controlling the modulation in said modulating step such that a pulse width for a pixel detected in said detecting step is shorter than a pulse width for a pixel which is not detected in said detecting step.

24. (Amended) An image forming method comprising:

an emitting step of emitting a plurality of light beams;

a scanning step of scanning the plurality of light beams to be emitted on a common photosensitive body;

a modulating step of pulse-width modulating the plurality of light beams emitted in said emitting step in accordance with respective image data;

a detecting step of detecting a plurality of image pixels which are adjacent to each other in a sub-scanning direction and which are exposed in common main scanings, in accordance with the image data; and

a pulse-width control step of controlling the modulation in said modulating step such that a pulse width for a pixel detected by in said detecting step is longer than a pulse width for a pixel which is not detected in said detecting step.

25. (New) An image forming apparatus comprising:

a plurality of emitting means for emitting a plurality of light beams;

scanning means for scanning a common photosensitive body with the plurality of light beams emitted by said plurality of emitting means;

modulating means for modulating the plurality of light beams in accordance with respective image data; and

control means for variably controlling an exposure amount of the plurality of light beams in a case that image pixels, each of which is overlapped with another image pixel, are exposed in a common scanning such that an exposure amount to expose at least one of the image pixels relatively increases compared to a case that the image pixels are exposed in a different scannings.

26. (New) An image forming apparatus according to Claim 25, wherein said control means performs pulse-width modulation.

27. (New) An image forming apparatus according to Claim 25, comprising memory means for storing image data for at least one scanning.

28. (New) An image forming apparatus according to Claim 25, wherein the light beams are laser beams.

29. (New) An image forming method comprising:

a step of emitting a plurality of light beams;

a step of scanning a common photosensitive body with the plurality of light beams emitted in said emitting step;

a step of modulating the plurality of light beams in accordance with respective image data; and

a step of variably controlling an exposure amount of the light beams, in the case that image pixels, each of which is overlapped with another image pixel, are exposed in a common scanning such that an exposure amount to expose at least one of the image pixels relatively increases compared to a case that the image pixels are exposed in different scannings.

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(Contd)

REMARKS

This application has been carefully reviewed in light of the Office Action dated September 6, 2002 (Paper No. 6). Claims 2, 3, 5 to 7, 11 to 15 and 19 to 29 are currently in the application, with Claims 1, 4, 8 to 10 and 16 to 18 having been canceled without prejudice or disclaimer of the subject matter contained therein. Claims 25 to 29 have been newly added herein. Claims 2, 3, 5, 6, 7, 15, 23 to 25 and 29 are the independent claims. Reconsideration and further examination are respectfully requested.

The specification was objected to for an informality. In response, Applicants have amended the specification to attend to the informality identified in the Office Action.